UTICA

Steam Heating

COMPANY,

Opera House Block,

UTICA, N. Y.

UTICA:
WHITE & WEBB, BOOK AND JOB PRINTERS, COR. BROAD & JOHN STS.
1877.

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ATHENAEUM OF PHILADELPHIA

4750

UTICA STEAM HEATING CO.

Self-Regulating, Low Pressure, Circulating

STEAM HEATING APPARATUS,

FOR

Public Buildings and Private Dwellings

OF EVERY DESCRIPTION.

E. D. WOOD, Manager,
HENRY HURLBURT, Treasurer.

OPERA HOUSE BLOCK,

UTICA, ONEIDA COUNTY, N. Y.

UTICA:
WHITE & FLOYD, PRINTERS, CORNER BROAD AND JOHN STREETS.
1877.

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Utica...

PLATE A.

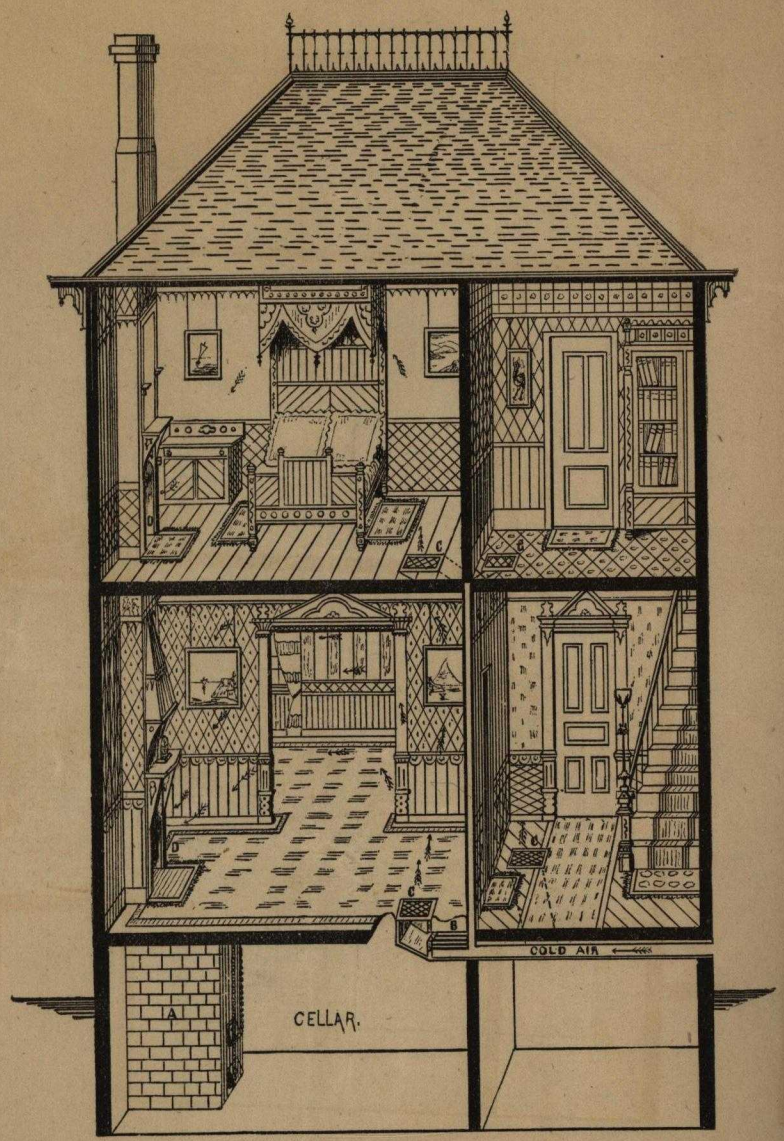
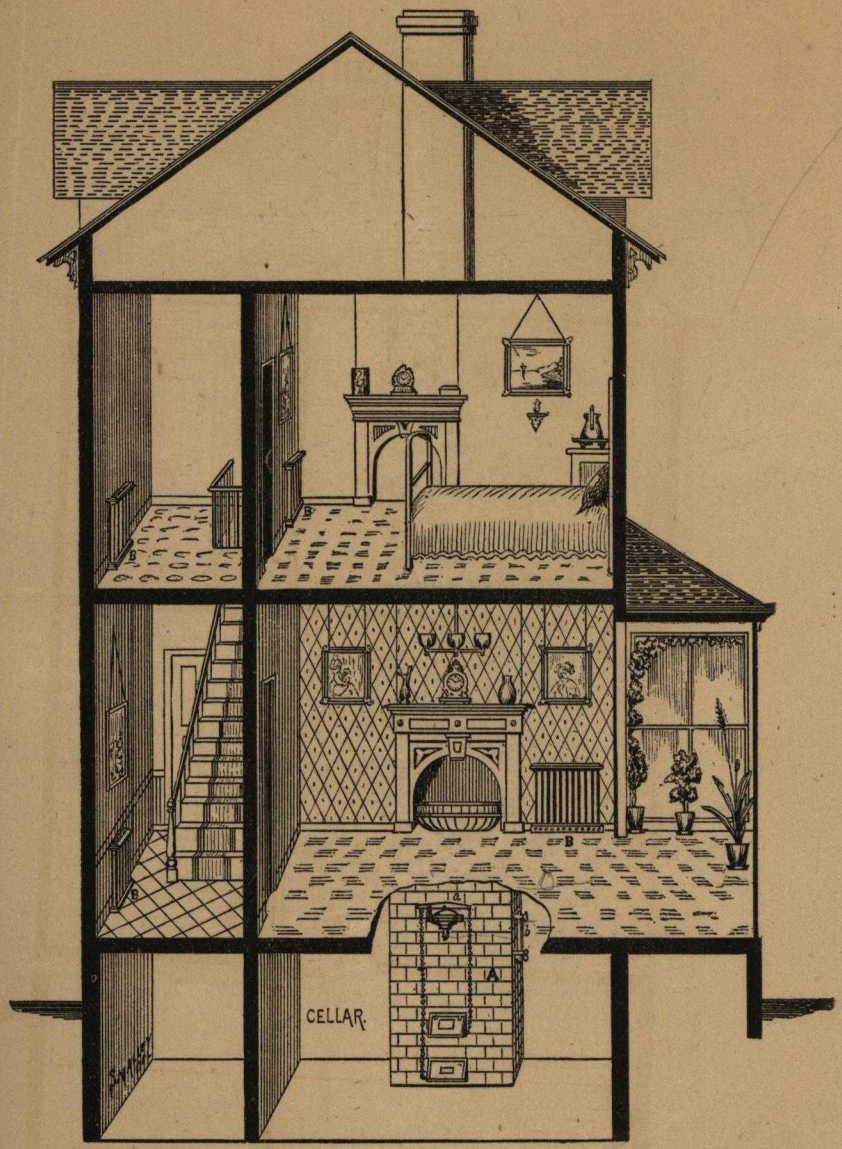


PLATE B.



Inside View of Dwelling by Direct and Indirect Radiation.

UTICA STEAM HEATING CO.

Description of our Apparatus.

PLATE A shows the interior of a dwelling with Indirect Radiation.

A, as seen in the basement, shows our Wrought Iron Generator, handsomely encased in a double wall of brick-work, the inside chamber round, to correspond to the shape of the boiler, while the outside is square, giving it a neat and symmetrical appearance. This gives perfect protection from fire.

In front is seen the Automatic Regulator attached to the fire and damper doors.

The Radiators B are in wood boxes lined with tin under the floor. A current of cold air from outside passes in through the cold air tube, as seen, and through the Radiator B, becomes warmed, and enters the apartment through the Register C. These Registers may be placed either in the floors or walls of the house.

In this manner of warming, *ventilation* is an essential point. As the current of warm air ascends to the top of the room and becomes cool, the foul air descends to the floor, being heavier than the warm air, and is drawn off at the Ventilating Flue D, as shown by the arrows in the figure.

After the room becomes filled with air through the hot-air Register, no more will enter it without this outlet or ventilating flue; while with this flue there is a constant circulation of pure fresh air. To shut off the heat, all that is required is to close the Register C, as you would in a hot-air furnace. While this mode of heating is considered by many the most desirable, it is evident that to thoroughly warm a dwelling in this way requires more fuel and a somewhat larger apparatus.

PLATE B shows the interior of a building with Direct Radiation, viz., placing the Radiator directly in each apartment to be warmed.

A is the Steam Generator placed in the basement cellar, as in plate A. B B B are Radiators, placed on the carpet in the most convenient place in each apartment; attached to each of these Radiators is a handsome nickel plated valve with mahogany wheel. Turn this wheel one way and the room is warmed, and turn it the other way and the heat is shut off. The moment it is shut off, the demand for steam is lessened; the Automatic Regulator *a* at the Generator closes the draft of the fire, and combustion ceases just in proportion to the demand.

This mode is less expensive in the construction and in the consumption of fuel than in the indirect mode of radiation, while there are comparatively few buildings that can be successfully warmed by the indirect method unless proper measures of ventilation are provided while the building is in process of construction.

Introduction.

The vast superiority of STEAM over Hot-Air Furnaces and other modes of heating buildings, has been so thoroughly demonstrated both in theory and practice, it seems almost superfluous to say anything on the subject. Yet as there are those who have never had the opportunity to investigate this point, it may be well to state briefly some of the advantages of steam heating, and show the fallacy of the objections frequently made to it.

1. It should be understood that Steam gives a *more equal and generally diffused heat* than can possibly be obtained by any other method. It is an established scientific fact that steam contains more than *twenty times* the amount of heat than can be contained in an equal weight of air. Hence the great saving of fuel over a hot-air furnace. The heat, stored in this steam, passes by pipes through the different parts of the building, then is developed by condensation in the radiators, and being reconverted into water, returns to the boiler to be reconverted into steam.

As many persons cannot understand how so much can be accomplished with so small an amount of radiating surface as we use, we invite their attention to the following remarks of Prof. Silliman, of Yale College, in his "Treatise on Artificial Warming." He says: "On passing into a state of "vapor, water absorbs nearly six times as much heat as is "required to raise it from 32 degrees to 212 degrees. This "increase of heat would render a solid body *red hot* by day-"light, and still the steam produced by it has only 212 "degrees of *sensible* heat. This quantity of heat is twenty "and one-half times as much as an equal weight of air can "contain, and is consequently capable of heating to the same

"point twenty and one-half times its own weight. The "thermometer indicates only 212 degrees of heat in steam at "the atmospheric pressure, and still it is susceptible of proof "that the steam has really absorbed nearly *six times* as "much heat in becoming vapor, as the water from which it "arose absorbs in passing from 32 degrees to 212 degrees. "That the steam really contains this prodigious quantity of "heat (essential to its condition as a vapor) we know *is an* "*established scientific fact*, but it is *stowed away*, so to speak, "*in the steam*, in a perfectly hidden and insensible manner, "and hence it has been very significantly called *latent heat* "*of steam*. But the instant the steam is condensed by "reconversion into water, this enormous quantity of heat is "liberated, and becomes *sensible heat*, available to warm the "surrounding air both by radiation and conduction, or by "immediate contact. A careful study of the operation of "this beautiful law will render clear the fact so mysterious "otherwise, that a comparatively small radiating surface, "heated by steam, should prove sufficient to heat a large "volume of air without at any time passing itself the limit "of 212 degrees."

2. Another consideration of much importance is, that steam gives a much *softer and more natural* heat than is possible from a Hot-Air Furnace. It is therefore more favorable to health, and to the preservation of furniture and plants in a good condition. This is a matter of vital importance, as no building is suitable for occupation that has not a pure and healthy atmosphere.

3. Again, where steam is used, with a proper apparatus, and erected in a proper manner, there is an entire *absence of gas*, or *smoke*, or *dust*, or anything else of an offensive nature. If there ever is anything objectionable of this kind, it is because a proper apparatus has not been used, or, if used, it has not been placed in position by those competent to do the work. The best and most skillful engineering is as of much importance as the best apparatus itself.

OBJECTIONS.

The objections made to the use of steam in heating buildings are, 1. The danger from high pressure of steam ; 2. The unpleasant hammering noise in the pipes ; 3. The constant attention and great amount of fuel required, and 4. The cost of the apparatus.

However valid these objections may be to some kinds of steam heating apparatus, or to the unskillful workmanship sometimes seen in the erection of such apparatus, we can assure the public there can be no such objections to the apparatus erected by us.

1. *It is perfectly safe.* We warrant it to sustain a *pressure of 100 lbs to the square inch,* while in no case will one pound to the square inch be required, and generally speaking not more than one-eighth of one pound pressure, as will be seen by the letter of Mr. Graham, the engineer of the State Lunatic Asylum.

2. There is no noise whatever in the pipes or radiators. This is the result of skillful engineering.

3. Having the best boiler to be found anywhere, and from our peculiar mode of setting it, we are enabled to heat a given space with from *a third to a half less fuel* than has hitherto been used. And this apparatus is so simple in its construction that any servant can readily manage it. All the attention required is to add a little coal twice a day, at morning and night, and one or two gallons of water once a week from a tank or hydrant.

This apparatus is entirely self-regulating and low pressure, and has in every instance where we have used it, given perfect satisfaction to our patrons, and received the unqualified approval of our ablest engineers and architects.

Our manager, Mr. E. D. Wood, has had more than twenty years experience in the designing and construction of steam machinery, and for some years past has given special

attention to heating buildings by steam. He has made such improvements in the construction and setting of the apparatus, as greatly to reduce the cost of fuel.

Although the original cost of steam apparatus is more than a hot-air furnace, it is not so for the *amount of space* heated. Steam penetrates every part of the room or building alike, and gives a far greater amount of heat than can be obtained from a Hot-Air Furnace with the same amount of coal. Hence it is a mistake to suppose that a Hot-Air Furnace can do the work of a good steam apparatus at the same expenditure of coal, while in every other and more important respect there is no comparison between the two systems of heating.

A SINGULAR FACT.

It is somewhat remarkable, that while many persons are willing to expend thousands of dollars on the mere luxuries and adornments of their dwellings, they hesitate to spend a few hundred in a heating apparatus that is essential to the health and comfort of their families. Or when they do determine to use steam, instead of seeking for the best apparatus, and an engineer who perfectly understands the work, they deliberately choose to go into the market and select an apparatus, and a person to erect it who knows nothing of the principles of steam, because forsooth, he is willing to do the work at a less expense than a good apparatus can be afforded, erected by a thoroughly accomplished engineer.

Will men risk their health and the comfort of their households to save a little money in that way, while they are lavish in expenditures in things of less importance? A good thing cannot be had for nothing; neither can it be had as cheap as a poor one. We have reduced the cost of steam heating so that any one in moderate circumstances can obtain it, and we are confident that for safety, durability, simplicity, efficiency and economy, it cannot be excelled.

DESCRIPTION OF OUR BOILER.

We use a wrought iron boiler, made from the best boiler plate, with wrought iron heads riveted in as strong and safe as though it was made to drive a steam engine. We use wrought iron, because nothing can be better, and we prefer to always have the best. This boiler is set vertically, so that all the openings through and around it will be upright. Hence it is self-cleaning, running through an entire season without any care necessary to keep it clear of soot or ashes.

By an arrangement of our own, (for which we have just applied for a patent,) we utilize all the products of combustion, so that there is no escape of gas, being all burned up, and great saving of coal is also effected.

PRESSURE OF STEAM.

It has been a matter of surprise to those who have seen our apparatus at work, that there was scarcely any pressure of steam perceptible. It is so slight as to amount to a mere vapor. We have already stated the laws by which steam heat is governed. But if the steam is in any manner obstructed by friction, or saturated with water before it reaches the radiator, or if the water does not leave it without friction so that the vapor in the boiler will flow to the radiator, this "latent heat" will not be developed, and you will get only the 212 degrees of *sensible* heat. This is the reason why there is so much hammering noise in the pipes, where steam apparatus is not properly erected. This result can only be prevented by employing an engineer to erect the apparatus who fully understands the principles that govern the use of steam in all its forms.

This leads us to notice the folly of employing parties to erect steam heating apparatus, who have no proper education for or training in the business. It is one thing to be able to keep a handsome store, and have on hand the materials of steam fitting and emyloy a set of men who are respectable

plumbers and gas fitters—but quite another to be able to tell you the amount of steam at a given pressure required to warm a given space; or the proper amount of radiation demanded by certain exposures, or by different kinds of buildings.

Men, ignorant of the laws of steam, often attempt to heat a building, and what is the result? Just what any intelligent man might expect. The furnace consumes too much fuel. The house is not kept warm unless the fire is attended to three or four times a day. Water drops on the carpet. There is noise in the pipes that disturbs the slumbers of the whole household. Gas escapes from the furnace, and the family are up in arms against the whole apparatus.

With a proper apparatus, erected by men who understand their business, all troubles of this nature are entirely obviated. We have never had a single instance, where we have put in our apparatus, when there has been any noise whatever from the pipes, or any attention required by the fire, except once in the morning and again in the evening: or any dropping of water on the floor, or any other trouble or care from the apparatus more than there would be from a parlor stove.

MODES OF HEATING.

There are two methods of heating, direct and indirect, They can be used separately or both combined in the same building. Our direct radiator is a handsome piece of parlor furniture. It is placed in the room to be heated, and the air is warmed by coming in contact with it. If it is not practical to place the radiator in the apartment, we place it underneath the floor, and place a register over it in the floor, also a register in the floor at a remote side of the room and connect the two by an air tube, thus circulating the air in the room through the radiator.

The second method of radiation is indirect. There are two ways for doing this: One is to place the radiator

under the floor in the basement of the house in a tin case, and connect it with a cold air box from the outside, thus giving a constant supply of fresh air which is warmed on its way into the room. This method requires good ventilation, for you cannot admit more air than will fill the room unless you have an outlet to keep up the circulation, and this is effected by openings for this purpose at the base of the room near the floor.

The other mode, and the one we prefer, is to combine direct and indirect radiation. It requires the same ventilation as the latter, is very ornamental and always gives a full supply of fresh warm air. This can be changed to direct radiation in an instant, and costs less than when the radiation is placed under the floor.

It should, however, be understood that both methods of indirect radiation, by which perfect ventilation, and pure, fresh, as well as warm air is secured, is somewhat more expensive than by direct radiation.

NOTICE.

We are prepared to fit up

Workshops, Factories, Tanneries and Mills

WITH

STEAM HEATING,

Where Engines are used for power, making use of the

EXHAUST STEAM

In such a manner that heating the building adds absolutely nothing to the cost of running an engine.

REPAIRS IN STEAM HEATING APPARATUS

made under the direction of our Engineer and by experienced workmen. We also furnish on short notice

STEAM COOKING APPARATUS,

such as Steam Kettles for Vegetables, Soups, Tea and Coffee, and Rendering Lard; Steam Tea and Coffee Apparatus for Dining Rooms, and Steam Carving Tables for Hotels and Public Institutions.

Testimonials.

STEAM HEATING.

THE PERFECTION OF WINTER COMFORT IN THE CITY HOSPITAL.

Bleak as are the surroundings of the City Hospital, the interior is now, in the matter of heat, the perfection of comfort. The Commissioners of Charities are to be congratulated upon the success of their experiment in putting in the Steam Heating Apparatus of Wood & Hurlburt, the invention of Mr. E. D. Wood. With the thermometer below zero outside, the temperature in-doors is easily and economically maintained at seventy degrees throughout the building—something impossible with stoves. This heat is the greatest and best distributed of any artificial heat that is applied to dwellings, offices or manufactories. This heating apparatus is self-regulating and low pressure—that is to say, it regulates its consumption of fuel and manufacture of heat, and is absolutely safe.

The Commissioners, the officials of the Hospital and the patients are charmed with the new heating arrangements.

CERTIFICATES THAT ARE WORTH SOMETHING.

Following will be found certificates of the practical tests and value of the Utica Steam Heating Company, from the Commissioners of Charities in charge of the City Hospital:

Joseph Graham, Chief Engineer of the New York State Lunatic Asylum in this city; H. P. Minot, Mechanical Engineer and Superintendent of Babbitt's Whitesboro Machine Works; Cooper & Smalley, Architects and Civil Engineers; and David Dimbleby, Keeper of the City Hospital. These gentlemen are all well known, and the citizens of Utica need no assurances that they are not in the habit of certifying to anything unless they fully understand its merits.

WHAT THE COMMISSIONERS OF CHARITIES SAY.

UTICA, December 20, 1876.

To the Utica Steam Heating Co.:

GENTLEMEN—The Steam Heating Apparatus you have placed in the City Hospital meets our entire approbation. The materials are of the best quality, and the engineering is of the first order. The recent cold weather has thoroughly tested its heating capacity, and we have been gratified to find that, with scarcely any pressure of steam, the building has been thoroughly warmed in every part, and this with a much smaller consumption of coal than was before used when it was very imperfectly warmed.

In our contract with you we selected Mr. Joseph Graham, the Engineer of the State Lunatic Asylum, to decide upon the merits of your Apparatus when in full operation at the Hospital. He has reported to us his entire approbation of your work in all respects; and we fully endorse all he has said, and cordially commend not only your heating Apparatus, but also the engineering ability of your manager, Mr. E. D. Wood, to the public.

A. C. MILLER,
JOHN F. SEYMOUR,
HOMER TOWNSEND,
WILLIAM BLAIKIE,
JAMES MERRIMAN,
JOSEPH FAASS,
Commissioners of Charities, Utica.

CERTIFICATE OF AN EXPERIENCED ENGINEER.

Messrs. WOOD & HURLBURT, *Utica Steam Heating Co.:*

GENTLEMEN—Having been selected by the Board of Charities of this city, in their contract with you, to examine the Steam Heating Apparatus you have put in the City Hospital, I have great pleasure in stating to you that after a full examination, I have reported to that Board my entire satisfaction with your Apparatus in all respects.

The construction and arrangement of the Apparatus is all that can be asked for or desired, and shows throughout excellent engineering.

As to durability, I would consider it a durable apparatus, at a constant working pressure of one hundred pounds to the square inch, while in no case over one pound to the square inch will

ever be required, and generally speaking much less than one pound.

I may add, that I noted carefully the statement of the thermometers in different parts of the Hospital, and found the heat to be seventy-six degress, while the outside temperature was ten degrees above zero. This is accomplished with a pressure of steam so slight that a Steam Gauge will not indicate it. I consider it a mere vapor.

JOSEPH GRAHAM,
Engineer, Asylum, Utica, N. Y.

SUPERINTENDENT MINOT'S ENDORSEMENT.

I fully concur in the above.

H. P. MINOT,
Sup't. Whitesboro Machine Works.

OPINION OF ARCHITECTS AND ENGINEERS.

We have fully examined the above mentioned building and apparatus, and cheerfully testify to the excellence of the work, as stated by Mr. Graham.

COOPER & SMALLEY,
Architects and Civil Engineers.

KEEPER DIMBLEBY'S EVERY DAY TEST.

70 Degrees—Could not keep warm before.

UTICA, December 20, 1876.

Utica Steam Heating Co.:

GENTLEMEN—The Low Pressure Steam Heating Apparatus which you erected in the City Hospital, of which I have charge, has been in operation during the past month, and in the most severe winter weather; and I would say, it is taking the place of Ten Coal Stoves, and warming the entire house to an average of seventy degrees of heat, night and day. It is easy to manage, and is a great saving of fuel over stoves. When using stoves, we could not keep the house so that water would not freeze in some parts of the wards, even when a stove was within twenty feet.

Yours truly,

D. DIMBLEBY,
Keeper City Hospital.

SMALL CONSUMPTION OF COAL.

Upon inquiry of the man in charge of the apparatus it was found that during the present week, one of the most severe that is expected, the consumption of coal has not exceeded 200 pounds per day, the temperature of the various departments of the Hospital ranging from 68 to 75 degrees.

MODERATE EXPENSE.

The Utica Steam Heating Company's Low Pressure Apparatus can be put into Churches, Residences, Stores, Halls, Schools, Hospitals, Court Houses, Jails, or other buildings, at three-quarters of the expense of any other first-class apparatus. The Utica Steam Heating Company *guarantees perfect satisfaction.*

So well satisfied is Charity Commissioner Blaikie with the merits of this apparatus, as displayed in its workings at the City Hospital, that he has contracted for heating Mr. Blaikie's store and residence with the apparatus. It is in operation at Thomas R. Thomas' new residence, No. 130 John street, L. B. Williams' residence, 65 Rutger street, and at the City Hospital.

E. D. Wood, Manager, and Henry Hurlburt, Treasurer of the Utica Steam Heating Company, can be addressed or found in the Opera House Block. Estimates for supplying the apparatus will be furnished free of charge. No citizen of Utica or vicinity should think of contracting for the heating of any building under his charge without first examining the Utica Steam Heating Company's apparatus. It seems to be the perfection so long sought for, and can be put into any building with a moderate outlay.—*Utica Observer.*

PRIVATE RESIDENCES.

UTICA, N. Y., March 15th, 1877.

Utica Steam Heating Company:

GENTLEMEN—I cheerfully testify to the utility of the Low Pressure Steam Heating Apparatus which you erected in my store and dwelling in the early part of the present winter. It has been in constant operation night and day since, and I am gratified to say it more than meets my expectations. The dimensions of my building are as follows: Basement 110 feet long by 15 feet wide; the store is the same size; the second floor is the same size; third floor is same width, 60 feet long; the fourth

floor same as the third. There is no other fire in the entire building, except an ordinary kitchen stove, located in the rear end of the second floor. All we are required to do is this: Every morning the grate is shaken, a little coal is added, and we do nothing further until we retire for the night, then we add a little more coal and find it all right in the morning. There is no dust, gas or *noise whatever*, and *our house is perpetual summer* from top to bottom. As far as water is concerned, we add a little on Saturdays, say a couple of gallons or so.

I cheerfully recommend your apparatus myself, and my entire family, and those who have seen it are satisfied in every respect with it. Yours truly,

(Signed,) WILLIAM BLAIKIE,
202 Genesee Street.

UTICA, N. Y., March 15th, 1877.

Utica Steam Heating Company:

GENTLEMEN—After deciding to heat my new dwelling by steam, and looking at the different apparatus, I decided it was to my interest to employ you to erect your apparatus, which was completed last fall before the building was fairly enclosed, as soon as the floors were laid, and with old windows nailed up to a part of the openings for windows, and others covered with paper, not a door hung inside of the building, and the outside ones not those belonging to the place, and the whole poorly fitting their places. I commenced using the apparatus with the building in this condition; and with the newly laid brick walls and plaster must have been under the most unfavorable circumstances. At first, and while the carpenters were at work, the apparatus was entirely in their hands. After they were through, the plasterers came on, and they were their own firemen. Then came the joiners, in whose hands it was placed while the inside work was being finished up; and lastly the painters, who took the care of it while their part of the work was being completed.

The ground floor of my dwelling contains a large hall in the center; on one side of this hall there are two parlors; on the other side, family sitting room and dining room. The halls and these four rooms are heated by indirect radiation, a current of pure air from outside is brought into the basement and passes over radiators and into the rooms through registers, as in a hot-air furnace. This gives a circulation of pure air from out of doors all through the house.

The second floor contains hall and four chambers, corresponding with the four rooms on first floor, back hall, bath room and two sleeping apartments; these are warmed by direct radiation.

Since the apparatus was first heated up it has been running constantly night and day, nothing has been out of order about it, and no care required except morning and evening, and there has not been any weather but what the finest plaster cornice, and ornamental bracket and center piece work could be made and put up. The entire house seems like summer, and the walls appear to have been dried, and look in a better condition, than they would be if dried by natural summer weather.

I most heartily recommend your apparatus.

Yours truly,

T. R. THOMAS.

UTICA, March 23, 1877.

Utica Steam Heating Company:

GENTLEMEN—It gives me great pleasure to inform you, that the Steam Heating Apparatus you placed in my dwelling, in Rutger street, in this city, works to my entire satisfaction in all respects. The house has been thoroughly warmed during the entire winter, notwithstanding the weather has at times been very severe. The atmosphere in the house has been as pleasant as summer, and my plants have flourished as though cold weather was unknown.

This has been effected by a very small expenditure of coal. I have kept a careful record of what has been used, showing that on an average, from the first of December to the last of March, not more than 125 pounds of coal have been consumed in 24 hours. This result, when it is considered that my house is in a very exposed position, is a matter of astonishment,

You are aware that my house is on high ground, and being built of wood, and exposed to the north and east winds that sweep through the Mohawk Valley, it might fairly be presumed that much more fuel would be required than in more sheltered places.

For the information of others, it may be well to state the amount of surface heated within my dwelling. The first floor, consists of a large hall, double parlors, dining room and library room. On the second floor, are three large chambers and bathroom, as well as a hall the entire length of the house. Each room on both floors contains a radiator. I may add, that three bed rooms, besides, without radiators, are sufficiently heated from the radiators in the other rooms. I am satisfied a ton of coal with your admirable apparatus, will heat double the space heated by stoves or a hot-air furnace.

There are several self-regulating attachments connected with your Generator that are peculiar to your apparatus, and are of no small value. They are worthy of consideration by those who are thinking of steam heating in their houses. And for simplicity of arrangement, and ease of management, I am confident no apparatus can excel your own. I do not have to pay any attention to my fire except morning and evening. All the water required is a quart or two once a week. The pressure of steam is so slight as not to be perceptible, except, when a cold room is to be heated; then I get up ½ pound pressure while the radiator is hot and circulation has taken place; then I drop back to a minus pressure until the radiator is closed. There is no inclination in the radiators to cool off.

I will simply add in conclusion, that there is no noise whatever, from either pipes, or radiators; no dust or gas, and no water dripping on the floor or carpets from the working of your apparatus. I am so well pleased with it, that I shall be glad to show and recommend it to any who may desire to learn further in relation to it.

Yours truly,

(Signed,) L. B. WILLIAMS.

OFFICE OF WHITE & FLOYD'S PRINTING WORKS,
Cor. Broad & John Streets,
UTICA, N. Y., April 3, 1877.

Utica Steam Heating Company:

GENTLEMEN—We desire to express to you our satisfaction with the manner in which the steam fixtures applied to our office, work. The exhaust steam is conducted some 300 feet, and yet but very little live steam is required to give the necessary warmth for our composing rooms, press rooms and offices. You are at liberty to recommend parties who contemplate applying steam-heating, to visit our office and make an examination.

WHITE & FLOYD.

WOOD & HURLBURT,

Opera House Block, No. 32 Fayette Street, Utica, N. Y.

GENERAL AGENTS

OF THE

Erie City Iron Works, Erie, Pa.
Skinner & Wood, " "
Wood, Taber & Morse, Eaton, Madison Co., N. Y.,

FOR THE SALE OF THEIR

PORTABLE AND STATIONARY

Steam Engines & Boilers,

AND

CIRCULAR SAW MILLS,

Of every size and description and of superior excellence.
Also agents for Central New York, of

Snyder's "Little Giant" Engine and Boiler,

Of from One to Three Horse Power.

ALSO

Steam Pipe, Shafting, Pullies, Hangers, Steam Pumps, Steam Gauges, Engine Governors, Damper Regulators, Oil Cups, Hair Felting, and Steam Fittings of all kinds.

We are also generally supplied with an assortment of

Second Hand Steam Engines, Boilers, Shafting,

and other articles of this character used for Mechanical and Agricultural purposes.

The above goods will always be sold at the lowest possible prices.

Utica, April, 1877.

Utica Steam Heating Co.

OPERA HOUSE BLOCK,

No. 32 FAYETTE STREET,

Utica, N. Y.